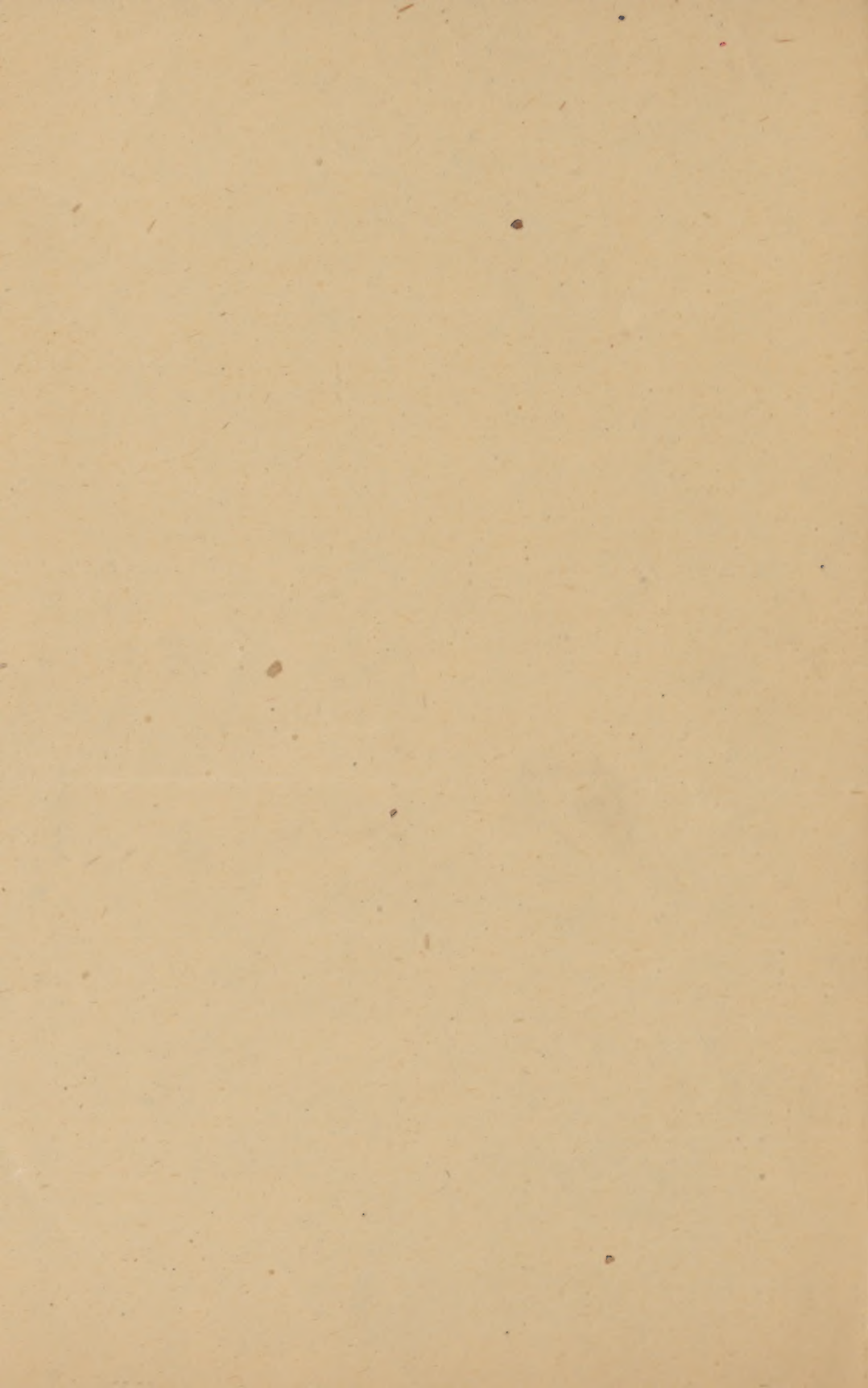


HOLMES (B.)

The Outlook for Medicine.

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## THE OUTLOOK FOR MEDICINE.

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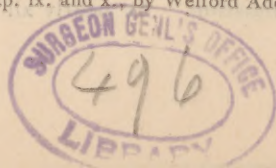
IN the best schools of medicine in the United States, the course of study has increased during the past six years from a course requiring about twelve majors (720 hours), extended over a minimum of eighteen months from the beginning to the end of the course, to one requiring about forty majors (2,400 hours), and covering not less than three years and a half from the beginning of the course to graduation. The greater part of this addition to the curriculum has been made in the department of normal and pathological histology. The teaching of these subjects is necessarily laboratory teaching. The practice of antiseptic surgery and the application of modern principles to hygiene presuppose in the surgeon and physician a practical knowledge of bacteriology. Antiseptic wound treatment has placed the practice of surgery in the hands of every physician, and again, imposes upon each and every one of them the necessity of a thorough practical knowledge of pathology for diagnostic use. The study of pathology requires an exact knowledge of normal histology, and well directed practice in the complicated methods of modern histological study.

Clinical teaching is conducted in medical schools by teachers who, with rare exceptions, receive no salaries. The fact of teaching carries with it a productive reputation through acquaintance with patients and students. The receipts from consultations which come to the occupant of a clinical chair in a well established institution are, in themselves, a fair recompense for the service rendered the school. The same cannot be said of laboratory teaching. It must be conducted by men who have more than ordinary training. It consumes a large amount of the instructor's time both in the class-room and in the preparation-room. It brings to the teacher no productive reputation, and allows little time for the cultivation of a private practice. On these accounts the laboratory teacher must be paid.

Laboratory teaching requires not only salaried teachers, but also large and expensively equipped laboratory rooms, with laboratory servants and a complicated store-room, from which to furnish, and in which to repair and even manufacture equipment and supplies. All of these new requirements are expensive, while, at the same time, the income of the medical school which adopts them is cut down by the smaller attendance upon the longer and more exacting course. Thus the subject of endowment of medical schools is brought prominently forward.

From information collected by the Bureau of Education,\* I am able to give a partial statement of the condition of medical endowments.

\* Forthcoming report of the Bureau of Education, Chap. ix. and x., by Welford Addis of the Bureau.





The hundred and more medical schools in the United States reported to this Bureau in June, 1892, the following facts : They were possessed of buildings and grounds valued at \$7,507,937, and *productive funds amounting to \$611,214*. Medical departments of State universities also received State aid in 1891-92 amounting to \$40,500, which, if capitalized at 5 per cent. would be equal to an endowment of \$810,000. Thus the total reported endowment of the hundred or more medical schools in the United States, with an annual enrollment of 16,736 students, foots up to \$1,421,214.

It is interesting to compare the same items as reported at the same time by the schools of theology, which have received the most liberal private endowment, and the schools of technology, which are the most liberally endowed by the State. The theological schools with 7,672 students, reported buildings and grounds valued at \$10,720,860, and productive funds amounting to \$17,599,979. The schools of technology with 10,921 students, reported productive funds amounting to \$13,299,940, and annual (1891-92) State aid of \$747,504, equaling, if capitalized at 5 per cent., an additional endowment of \$14,950,080. Thus the total endowment of the schools of technology was \$28,180,020.

Medicine has not a single well endowed school. There is no medical school connected with a university in which medical education is vigorously pursued. In the University of Pennsylvania, the course of study is still three years. In the medical school of Harvard University, the endowment is very meagre, and the professors are paid less than the tutors in the literary department. Johns Hopkins University has not yet opened its medical school, and even with the lately acquired endowment which has been received conditional upon opening this department to women, and with the cooperation of the Biological and Hospital Faculty, it will be much pinched for funds to furnish instruction to any considerable number of students.

The University of Michigan has a medical school which receives a moderate support from the Regents. Unfortunately, it is located in a small town and far from clinical instruction. The effort lately made to place the clinical department in Detroit was, unfortunately for medical education, unsuccessful. The University of Minnesota supports her medical department liberally. It has just opened two very well constructed buildings for the schools of Pharmacy, Dentistry, Homœopathy and Medicine, and appropriated \$25,000 for the support of these departments for the year. The school is well located in Minneapolis-St. Paul, and will soon have very good clinical facilities. The University of Michigan insists upon a four-year course ; the University of Minnesota, a three-year course. The entrance requirements of each is about equal to that for admission to the Freshman class in their respective literary schools. In both institutions two years of the course may be taken in the years necessary for the Bachelor's degree.

In all the medical schools of the country the course of study is ironclad. Too much goes by tradition and precedent. In most schools elementary chemistry is taught. This is a waste of energy. It should be required on admission. In nearly all schools the course of study has little supervision,

and the curriculum is made to accommodate itself to the requirements of the faculty. In the large schools classes of one and even two hundred are in attendance on lectures and clinic. The preference of medical teachers for large classes is considered rather than the needs of students for instruction. The schools are closed during four or six months of every year.

The great impediments to medical education in the United States lie now in three directions: (1.) The absurd rules or laws, in all but a few States, which make the diploma of a medical school a license to practice medicine. This makes the pressure to turn the educational institution into a diploma mill irresistible. (2d.) The medical schools are manned for the advantage of the unpaid professors, and these professors magnify that portion of medical instruction which conduces most to their own financial interest. Thus clinical instruction in some schools is begun as early as the first year. Lectures come next in value to the professor, and they are overcrowded. (3d.) The total lack of endowment compels the medical schools to consider immediate incomes, and thus the school with the shortest, easiest and most superficial course is, as a rule, the largest and most prosperous.

Before the State Board of Examiners of Minnesota,\* the four medical schools having the largest enrollment had a notably larger percentage of their graduates rejected than did any or all of the other reputable schools.

To the conscientious physician, to the humanitarian and to the educator the condition of our medical schools is all but hopelessly deplorable. A hundred diploma mills stare us in the face, with seven millions of dollars invested. If each institution has twenty professors, there are no less than two thousand of our leading physicians who are interested financially in keeping up the present condition of affairs. Of the forty university medical schools not one is managed on the educational basis of other departments, and few have any vital connection with the University. All other educational institutions are being liberally endowed, either by the State or by private individuals or societies; but medicine alone is neglected. Medicine is unpopular with University faculties, with students, with State Legislatures, and with benevolent millionaires, in spite of the fact that in no other department of science during the past thirty years has such great advancement been made, in no other department of applied science has such remarkable life-saving results been attained, and in no other field of experimental research are such brilliant results likely to be attained in the immediate future. Medicine furnishes a sphere of usefulness to the altruist, the scientist and the scholar, independent and varied beyond that of any other profession or calling. And yet hardly ten per cent. of the graduates of literary institutions seek in medicine a career.

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\*Perry Millard, Proceedings of the American Academy of Medicine, 1892.







